COURSE OVERVIEW RE0200
Maintenance Management, CMMS, KPI, Planning Budgeting & Cost Reports

Course Title
Maintenance Management, CMMS, KPI, Planning, Budgeting & Cost Reports

Course Date/Venue
July 26-30, 2026/Sama Meeting Room, Pullman Doha West Bay, Doha, Qatar

Course Reference
RE0200

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description

This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of Maintenance Management, CMMS, KPI, Planning Budgeting and Cost Reports. It covers the fundamentals of maintenance management, asset management principles and maintenance strategies & methodologies; the maintenance organization, resource management and maintenance policies, standards and compliance; the maintenance performance, CMMS fundamentals, asset register and equipment database; and the work order management, preventive maintenance management in CMMS and inventory and spare parts management.

During this interactive course, participants will learn the CMMS reporting and data analytics, maintenance planning, work scheduling techniques and resource planning; the work execution and control, maintenance backlog management and planning performance improvement; the maintenance key performance indicators (KPIs), equipment performance metrics and maintenance budget planning; the maintenance cost management, cost optimization strategies and financial performance reporting; the maintenance reporting systems, maintenance data analysis, continuous improvement in maintenance, maintenance audits and benchmarking; and the budget-based maintenance decisions, asset risk prioritization and long-term maintenance planning.

Course Objectives/Outcomes & Benefits for the Participants

Upon the successful completion of this course, each participant will be able to: -

- Apply and gain an in-depth knowledge on maintenance management, CMMS, KPI, planning budgeting and cost reports
- Discuss the fundamentals of maintenance management, asset management principles and maintenance strategies and methodologies
- Carryout maintenance organization, resource management and maintenance policies, standards and compliance
- Recognize maintenance performance, CMMS fundamentals, asset register and equipment database
- Apply work order management, preventive maintenance management in CMMS and inventory and spare parts management
- Employ CMMS reporting and data analytics, maintenance planning, work scheduling techniques and resource planning
- Carryout work execution and control, maintenance backlog management and planning performance improvement
- Implement maintenance key performance indicators (KPIs), equipment performance metrics and maintenance budget planning
- Apply maintenance cost management, cost optimization strategies and financial performance reporting
- Recognize maintenance reporting systems and carryout maintenance data analysis, continuous improvement in maintenance, maintenance audits and benchmarking
- Combine CMMS data with KPIs and apply budget-based maintenance decisions, asset risk prioritization and long-term maintenance planning

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of maintenance management, CMMS, KPI, planning, budgeting and cost reports for maintenance managers and supervisors, maintenance planners and schedulers, reliability and asset management engineers, maintenance and plant engineers, CMMS administrators and key users, maintenance analysts and KPI reporting specialists, asset performance and continuous improvement professionals, finance and cost control personnel supporting maintenance operations, plant and operations managers, professionals responsible for maintenance planning, budgeting, cost reporting, and performance management.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations:

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Mr. Karl Thanasis, PEng, MSc, MBA, BSc, is **Senior Mechanical & Maintenance Engineer** with over **30 years** of extensive industrial experience. His wide expertise includes **Piping & Pipeline**, Maintenance, Repair, **Shutdown**, **Turnaround & Outages**, **Maintenance & Reliability** Management, **Mechanical Maintenance** Planning, Scheduling & Work Control, Advanced Techniques in **Maintenance** Management, **Predictive & Preventive** Maintenance, **Maintenance & Operation Cost Reduction** Techniques, Reliability Centered Maintenance (**RCM**), **Machinery Failure** Analysis, **Rotating Equipment Reliability** Optimization & Continuous Improvement, **Material Cataloguing**, **Mechanical & Rotating Equipment** Troubleshooting & Maintenance, **Root Cause Analysis & Reliability** Improvement, **Condition** Monitoring, **Root Cause Failure Analysis** (RCFA), **Steam Generation**, **Steam Turbines**, **Power Generator Plants**, **Gas Turbines**, **Combined Cycle Plants**, **Boilers**, **Process Fired Heaters**, Air Preheaters, Induced Draft Fans, All Heaters Piping Work, Refractory Casting, Heater Fabrication, Thermal & Fired Heater Design, **Heat Exchangers**, Heat Transfer, Coolers, **Power Plant** Performance, Efficiency & Optimization, **Storage Tank** Design & Fabrication, **Thermal Power Plant** Management, **Boiler & Steam** System Management, **Pump** Operation & Maintenance, **Chiller & Chiller Plant** Design & Installation, **Pressure Vessel**, **Safety Relief Valve** Sizing & Selection, **Valve** Disassembling & Repair, Pressure Relief Devices (**PSV**), **Hydraulic & Pneumatic** Maintenance, Advanced **Valve** Technology, **Pressure Vessel** Design & Fabrication, **Pumps**, Turbo-Generator, Turbine **Shaft Alignment**, **Lubrication**, Mechanical **Seals**, Packing, **Blowers**, **Bearing** Installation, **Couplings**, **Clutches** and **Gears**. Further, he is also versed in **Wastewater Treatment** Technology, **Networking** System, **Water Network Design**, Industrial **Water Treatment** in Refineries & Petrochemical Plants, **Piping** System, Water Movement, Water Filtering, Mud Pumping, **Sludge Treatment** and **Drying**, **Aerobic Process** of **Water Treatment** that includes **Aeration**, **Sedimentation** and **Chlorination Tanks**. His strong background also includes **Design** and **Sizing** of all **Waste Water Treatment Plant Associated Equipment** such as **Sludge Pumps**, **Filters**, **Metering Pumps**, **Aerators** and **Sludge Decanters**.

Mr. Thanasis has acquired his thorough and practical experience as the **Project Manager**, **Plant Manager**, **Area Manager - Equipment Construction**, **Construction Superintendent**, **Project Engineer** and **Design Engineer**. His duties covered **Plant Preliminary Design**, **Plant Operation**, **Write-up** of **Capital Proposal**, **Investment Approval**, **Bid Evaluation**, **Technical Contract Write-up**, **Construction** and **Sub-contractor Follow up**, **Lab Analysis**, **Sludge Drying** and **Management** of **Sludge Odor** and **Removal**. He has worked in various companies worldwide in the **USA**, **Germany**, **England** and **Greece**.

Mr. Thanasis is a **Registered Professional Engineer** in the **USA** and **Greece** and has a **Master's** and **Bachelor's** degree in **Mechanical Engineering** with **Honours** from the **Purdue University** and **SIU** in **USA** respectively as well as an **MBA** from the **University of Phoenix** in **USA**. Further, he is a **Certified Internal Verifier/Trainer/Assessor** by the **Institute of Leadership & Management** (**ILM**) a **Certified Instructor/Trainer** and has delivered numerous trainings, courses, seminars, workshops and conferences worldwide.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

Course Fee

US$ 6,000 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: ***Sunday, 26th of July 2026***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Fundamentals of Maintenance Management*** *Objectives & Functions of Maintenance Management • Maintenance Strategies & Maintenance Life Cycle • Roles & Responsibilities of Maintenance Personnel • Aligning Maintenance with Organizational Objectives*
0930 – 0945	*Break*
0945 – 1030	***Asset Management Principles*** *Asset Life Cycle Management • Critical Asset Identification & Classification • Asset Reliability & Availability Concepts • ISO 55000 Asset Management Framework*
1030 – 1130	***Maintenance Strategies & Methodologies*** *Preventive Maintenance (PM) • Predictive & Condition-Based Maintenance (CBM) • Reliability-Centered Maintenance (RCM) • Risk-Based Maintenance (RBM)*
1130 – 1215	***Maintenance Organization & Resource Management*** *Maintenance Organizational Structures • Workforce Planning & Skill Development • Contractor & Vendor Management • Spare Parts & Inventory Coordination*
1215 – 1230	*Break*

1230 – 1330	***Maintenance Policies, Standards & Compliance*** *Maintenance Procedures & Documentation • Equipment History Records • Regulatory Compliance & Audits • Health, Safety & Environmental Considerations*
1330 – 1420	***Introduction to Maintenance Performance*** *Maintenance Effectiveness Indicators • Measuring Equipment Performance • Introduction to KPIs • Continuous Improvement Concepts*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day One*

Day 2: Monday, 27th of July 2026

0730 – 0830	***CMMS Fundamentals*** *Purpose & Benefits of CMMS • Core CMMS Modules • Data Requirements & System Architecture • CMMS Implementation Roadmap*
0830 – 0930	***Asset Register & Equipment Database*** *Equipment Hierarchy Development • Asset Coding Standards • Bill of Materials (BOM) • Equipment Master Data Management*
0930 – 0945	*Break*
0945 – 1100	***Work Order Management*** *Work Request Process • Work Order Planning • Work Order Scheduling • Work Order Close-Out & Documentation*
1100 – 1215	***Preventive Maintenance Management in CMMS*** *PM Program Development • PM Scheduling • Automated Maintenance Notifications • PM Compliance Monitoring*
1215 – 1230	*Break*
1230 – 1330	***Inventory & Spare Parts Management*** *Spare Parts Cataloguing • Inventory Control Methods • Reorder Levels & Stock Optimization • Purchasing Integration*
1330 – 1420	***CMMS Reporting & Data Analytics*** *Standard Maintenance Reports • Dashboard Development • Equipment History Analysis • Data Accuracy & Performance Monitoring*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Two*

Day 3: Tuesday, 28th of July 2026

0730 – 0830	***Maintenance Planning Fundamentals*** *Planning Objectives • Job Planning Process • Work Scope Definition • Maintenance Planning Documentation*
0830 – 0930	***Work Scheduling Techniques*** *Weekly & Monthly Scheduling • Shutdown & Turnaround Planning • Priority-Based Scheduling • Schedule Compliance Monitoring*
0930 – 0945	*Break*

0945 – 1100	***Resource Planning*** *Labor Planning • Equipment & Tool Allocation • Material Availability Planning • Contractor Resource Management*
1100 – 1215	***Work Execution & Control*** *Daily Maintenance Coordination • Permit-to-Work Integration • Progress Monitoring • Work Completion Verification*
1215 – 1230	*Break*
1230 – 1330	***Maintenance Backlog Management*** *Backlog Identification • Backlog Prioritization • Backlog Reduction Strategies • Performance Monitoring*
1330 – 1420	***Planning Performance Improvement*** *Planning KPIs • Schedule Effectiveness • Planner Productivity • Continuous Improvement Initiatives*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Three*

Day 4: ***Wednesday, 29th of July 2026***

0730 – 0830	***Maintenance Key Performance Indicators (KPIs)*** *Selecting Effective Maintenance KPIs • Leading versus Lagging Indicators • KPI Benchmarking • KPI Dashboard Design*
0830 – 0930	***Equipment Performance Metrics*** *Overall Equipment Effectiveness (OEE) • Mean Time Between Failures (MTBF) • Mean Time to Repair (MTTR) • Equipment Availability & Reliability*
0930 – 0945	*Break*
0945 – 1100	***Maintenance Budget Planning*** *Maintenance Budget Development • Operating versus Capital Expenditure (OPEX & CAPEX) • Annual Maintenance Budget Preparation • Budget Approval Process*
1100 – 1215	***Maintenance Cost Management*** *Labor Cost Analysis • Material & Spare Parts Costs • Contractor Cost Management • Life Cycle Cost Analysis (LCCA)*
1215 – 1230	*Break*
1230 – 1330	***Cost Optimization Strategies*** *Cost Reduction Opportunities • Risk-Based Spending Decisions • Maintenance Value Analysis • Productivity Improvement Initiatives*
1330 – 1420	***Financial Performance Reporting*** *Budget Variance Analysis • Maintenance Financial KPIs • Cost Performance Monitoring • Management Reporting*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Four*

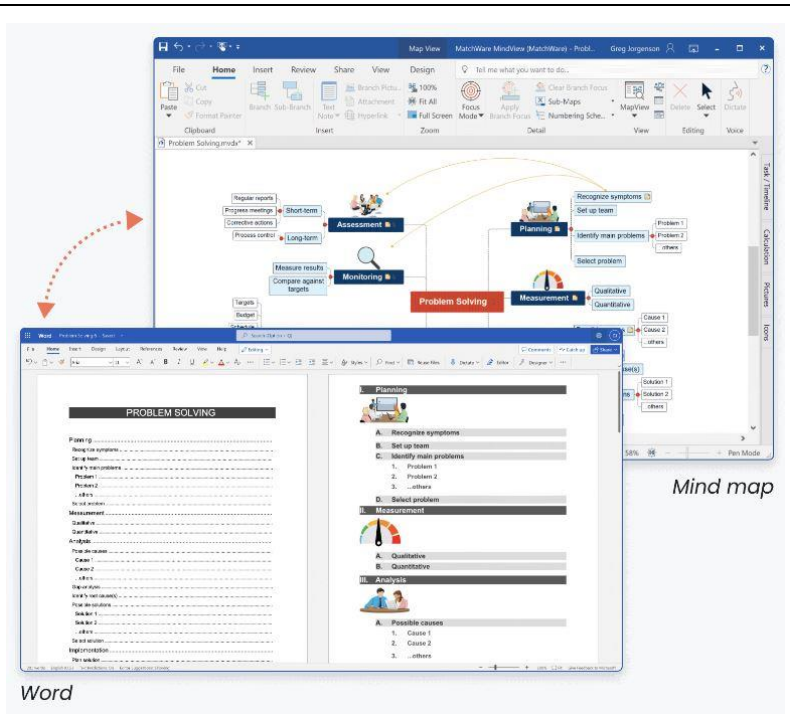
Day 5:	***Thursday, 30th of July 2026***
0730 – 0830	***Maintenance Reporting Systems*** *Daily, Weekly & Monthly Reports • Executive Maintenance Dashboards • Work Order Performance Reports • Asset Health Reporting*
0830 – 0930	***Maintenance Data Analysis*** *Failure Trend Analysis • Downtime Analysis • Root Cause Analysis (RCA) • Predictive Analytics for Maintenance*
0930 – 0945	*Break*
0945 – 1100	***Continuous Improvement in Maintenance*** *Lean Maintenance Principles • Six Sigma Applications • Reliability Improvement Programs • Maintenance Excellence Models*
1100 – 1215	***Maintenance Audits & Benchmarking*** *Internal Maintenance Audits • Maintenance Maturity Assessment • Benchmarking Against Industry Best Practices • Audit Findings & Corrective Actions*
1215 – 1230	*Break*
1230 – 1300	***Integrated Maintenance Decision-Making*** *Combining CMMS Data with KPIs • Budget-Based Maintenance Decisions • Asset Risk Prioritization • Long-Term Maintenance Planning*
1300 – 1345	***Practical Workshop*** *CMMS Case Study & Hands-On Exercises • KPI Calculation & Dashboard Development • Maintenance Budget & Cost Report Preparation • Action Planning*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the "MS Project" and "Mindview Software".

Microsoft Office Project

Enterprise Project Management Solution



Mindview Software

Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org